Chapter 11

Tacit Knowledge Acquisition and Processing Within the Computing Domain: An Exploratory Study

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Given that Articulate Knowledge has long been codified and substantiated for daily usage, the role of articulable Tacit knowledge needs to be examined in greater detail with an emphasis on its usage in the public sector. What needs to be born in mind however is that the codification of Tacit Knowledge is a reality and that eventually almost all Tacit Knowledge becomes so. This process is not necessarily immediate but takes place in a stepwise format passing through partial to full codification. The authors also argue that codification is more prevalent today due to the need for organisations to be more accountable. Accountability requires accurate reporting and quantitative interpretations of information which in turn demand codified knowledge, not tacit ambiguities.

INTRODUCTION

Almost certainly a great deal of effort and expense has been placed into the articulation of knowledge, particularly in Western societies (Nonaka, 1991; Nonaka & Takeuchi, 1996). The Japanese approach for example has long been recognised to make greater use of the Tacit component when undertaking day to day tasks or even important business deals. In order for such success to take place however,
a significant amount of Tacit Knowledge is drawn upon. It has been noted that the influence of Tacit Knowledge in the Health sector for example, is significant (Goldman, 1990; Scott, 1990; Meerabeau, 1992). The authors present a few models by which it is hoped they may be tested within the public and private sector domains, although there is at least sound evidence to suggest that Tacit Knowledge can be measured (Sternberg, Wagner & Okagaki, 1993; Wagner, 1987; Wagner and Sternberg, 1985, 1991; Williams and Sternberg, in press in Sternberg, Wagner, Williams & Horvath, 1995; Horvath, Forsythe, Bullis, Sweeney, Williams, McNally, Wattendorf & Sternberg, 1999; Wagner, Sujan, Sujan, Rashotte & Sternberg, 1999). We would like to point out that we consider only “articulable” Tacit Knowledge able to be codified, tacit knowledge sensu latu encompasses more as one would expect. Finally, throughout the article AK is used to indicate Articulate or Codified Knowledge, and TK is used to indicate Tacit Knowledge.

TACIT KNOWLEDGE VERSUS ARTICULATE KNOWLEDGE

There is evidence to suggest that a sliding scale exists between data, information and knowledge. “Data consists of raw facts … Information is a collection of facts organised in such a way that they have additional value beyond the value of the facts themselves …… Knowledge is the body of rules, guidelines, and procedures used to select, organise and manipulate data to make it suitable for a specific task …..” (Stair & Reynolds, 1998 :5 [italics added]). This is fine as a generalisation, however it should be acknowledged that an extension to this should note that knowledge itself may be divided into a further two categories, namely that of Tacit and Articulate knowledge, the former for example being a favourite with the Japanese (Takeuchi, 1998). It was Polanyi (1959 in Greeno, 1987) who was instrumental in first ……. distinguishing between explicit [or articulate] knowledge, “what is usually described as knowledge, as set out in written words or maps, or mathematical formulae,” and Tacit knowledge, “such as we have of something we are in the act of doing” (:12)

Tacit knowledge is thus that component of knowledge that is widely held by individuals but not able to be readily expressed. It is expertise, skill, “know how,” as opposed to codified knowledge.

Articulate Knowledge is typically acquired through formal education, writings, books, rule sets, legal code to name but a few examples. Tacit Knowledge on the other hand is acquired through a more “intimate” relationship between a “master” and an “apprentice.” It is transferred more orally, more by way of example, more by sight. The writers would like to note that “apprenticeship” within the article
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